UNITED STATES DISTRICT COURT DISTRICT OF MASSACHUSETTS

GENLYTE THOMAS GROUP LLC, a Delaware Limited Liability Company

Plaintiff.

v.

Civil Action No. 05-CV-10945 WJY

ARCHITECTURAL LIGHTING SYSTEMS, a division of ARCH LIGHTING GROUP, a Rhode Island Corporation

Defendant.

GENLYTE THOMAS GROUP LLC'S RESPONSE TO DEFENDANT'S STATEMENT OF UNDISPUTED FACTS AND COUNTERSTATEMENT OF FACTS

Pursuant to Local Rule 56.1, Plaintiff, Genlyte Thomas Group LLC ("Genlyte"), submits the following Response to Defendant's Statement of Undisputed Facts:

1. ALS manufactures and sells various models of lighting products for use in patient rooms under the name MulTMed.

RESPONSE: Genlyte does not dispute paragraph 1.

2. The MulTMed products are intended to be installed on or in a ceiling of a patient room over the bed.

RESPONSE: Genlyte does not dispute paragraph 2.

3. The MulTMed products include multiple fixtures to provide light for different types of functions necessary in patient rooms, including patient reading, ambient room lighting, and examination of a patient.

RESPONSE: Genlyte does not dispute paragraph 3.

4. There are two principal models for the MulTMed product, 2x2 and 2x4.

RESPONSE: Genlyte does not dispute paragraph 4.

5. The MulTMed 2x4 product includes three fixtures, each having one or more lamps, which function as a reading light, an ambient light and an examination light.

RESPONSE: Genlyte does not dispute paragraph 5.

6. The MulTMed 2x2 product include [sic] two fixtures, each having one or more lamps. The fixtures provide the same functions as in the MulTMed 2x4 product, but in various combinations, including (1) a reading light and an ambient light; (2) an ambient light and an examination light.

RESPONSE: Genlyte does not dispute paragraph 6.

7. For each of the models of the MulTMed product, there are a variety of options. Options include a nurse/chart light, lamp types, voltage levels, and mounting structures.

RESPONSE: Genlyte does not dispute paragraph 7.

8. The reading light function in all MulTMed products is provided by a single lamp in a fixture positioned one end of the product. The fixture and lamp are oriented parallel the end of the product. Typically, the product is installed with the end having the reading light fixture closest to the wall at the head of the patient bed.

RESPONSE: Genlyte disputes paragraph 8 to the extent that it implies that the fixture of the MulTmed products designated by ALS as the "reading" fixture is the only fixture of the MulTmed products that can perform the function of providing light to a reading area. (Declaration of Roy Crane ("Crane Dec."), attached hereto as Exhibit 1, ¶¶ 22). Genlyte does not dispute that the fixture of the MulTmed products designated by ALS as its "reading" fixture contains a single lamp parallel to the shorter end of the product. Further, Genlyte does not dispute that the MulTmed products are installed with

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the fixture designated by ALS as its "reading" fixture closest to the wall at the head of the patient's bed.

9. The reading light fixture provides general undirected illumination to an area below the fixture. It provides a symmetrical light distribution. The greatest amount of light is emitted directly downward, with less light being emitted at angles moving towards the ceiling.

RESPONSE: Genlyte disputes paragraph 9. The light from the fixture of the MulTmed products designated by ALS as its "reading" fixture is not "general undirected illumination." The "reading" fixture does not produce any upwardly directed light, but is oriented to direct light downwardly to a reading area below the fixture. (Crane Dec., ¶¶ 15-16, 20). Further, the "reading" fixture does not direct the "greatest amount" of light "directly" downward. (Crane Dec., ¶ 22). In fact, there is more light directed between angles moving toward the ceiling (e.g., between 40 and 45 degrees) than emitted "directly" downward. (Crane Dec., ¶ 22). Moreover, the fixture of the MulTmed products designated by ALS as its "ambient" fixture likewise directs light downwardly to a reading area below the fixture. (Crane Dec., \P 21).

10. The ambient light function for all MulTMed products is provided by two lamps in a fixture positioned at an end of the product opposite the reading light fixture. The fixture is substantially square.

RESPONSE: Genlyte disputes paragraph 10 to the extent that it implies that the fixture of the MulTmed products designated by ALS as the "ambient" fixture is the only fixture of the MulTmed products that can perform the function of providing light to a broad area under the fixture. (Crane Dec., ¶ 22). Genlyte does not dispute that the

fixture of the MulTmed products designated by ALS as its "ambient" fixture contains two lamps, is substantially square and is positioned opposite what ALS designates as the "reading" fixture.

11. In the MulTMed 2x4 product, the two lamps in the ambient light fixture are parallel to each other and perpendicular to the ends of the product. In the MulTMed 2x2 product having an ambient light and an examination light, the ambient light lamps are positioned similarly to those in the MulTMed 2x4 product, parallel to the examination light lamps and separated from each other. In the MulTMed 2x2 product having a reading light and ambient light, the two lamps of the ambient light fixture are parallel to the reading light lamp and the ends of the product.

RESPONSE: Genlyte disputes paragraph 11 to the extent that it implies that the fixtures of the MulTmed products designated by ALS as "reading," "ambient," and "examination" can only perform the function of providing reading, ambient, and examination light, respectively, as designated by ALS. (Crane Dec., ¶ 22).

12. All of the ambient light fixtures, regardless of the directionality of the lamps, produce general undirected illumination to an area below the fixture. It provides a symmetrical light distribution. The greatest amount of light is emitted directly downward, with less light being emitted at angles moving towards the ceiling.

RESPONSE: Genlyte disputes paragraph 12. The light from the fixture of the MulTmed products designated by ALS as its "ambient" fixture is not "general undirected illumination." The "ambient" fixture does not produce any upwardly directed light, but does direct light downwardly to an area below the fixture and outwardly to a vertical wall at the head of a patient bed. (Crane Dec., ¶¶ 17-18, 21). Further, the "ambient" fixture

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does not direct the "greatest amount" of light "directly" downward. Instead, the "ambient" fixture produces the highest intensity of light straight down. (Crane Dec., ¶ 22). Moreover, the fixture of the MulTmed products designated by ALS as its "reading" fixture likewise directs light downwardly to an area below the fixture and outwardly to a vertical wall at the head of a patient bed and none upwardly. (Crane Dec., ¶ 22).

13. The examination light function of the MulTMed 2x4 product is provided by two fixture [sic], each having two lamps, positioned along the sides of the product. The examination light function in the MulTMed 2x2 product also includes two fixtures, each having either one or two lamps, positioned along the sides of the product.

RESPONSE: Genlyte disputes paragraph 13 to the extent that it implies that the MulTmed product requires two fixtures to provide light to an examination area below the fixture. The fixture, or fixtures, of the MulTmed products designated by ALS as the "examination" fixture(s) each direct light downwardly to a patient examination area. (Exhibit B to Davis Declaration, attached as Exhibit 2 to Defendant's Statement of Undisputed Facts, ALS0305). Genlyte does not dispute that the fixture, or fixtures, of the MulTmed products designated by ALS as its "examination" fixture contains two lamps, positioned along the sides of the 2x4 product and either one or two lamps, positioned along the sides of the 2x2 product.

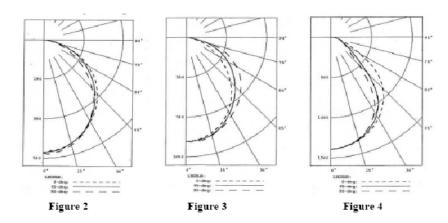
14. The examination light fixtures provide two crossed beams of asymmetric light. The two beams create a symmetric distribution under the fixtures for shadow free illumination of the patient bed.

RESPONSE: Genlyte disputes paragraph 14 insofar as it implies that the MulTmed product requires two fixtures to provide light to an examination area below the

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fixture. The fixture, or fixtures, of the MulTmed products designated by ALS as the "examination" fixture(s) each direct light downwardly to a patient examination area. (Exhibit B to Davis Declaration, ALS0305).

15. Figs. 2, 3, and 4 below, from the Davis Declaration, illustrate photometric data for the reading light, ambient light and examination light, respectively, of a MulTMed 2x4 product. The MulTMed 2x2 products have the same fixtures and, thus, the same light distributions.



RESPONSE: Genlyte disputes paragraph 15. Genlyte disputes that all of the MulTmed 2x2 fixtures have the same distribution. The light distribution of the "ambient" fixture in the MulTmed 2x2, which have the lamps parallel to the ends of the product, have a distribution pattern similar to, but not the same as, Figure 2 above. Because such fixtures are rotated 90 degrees from the fixture providing the distribution in Figure 2, the distribution will likewise be rotated 90 degrees.

16. The photometric data shown in Figs. 1-4 represents the amount of light emitted from each fixture in various directions represented as graphs.

RESPONSE: Genlyte disputes paragraph 16. The photometric data shown in Figures 2-4 represent the intensity of light, not the "amount" of light, emitted in various directions. (Crane Dec., ¶ 22; Exhibits 3-5 to Crane Dec.).

17. Figure 2 shows the light distribution for the reading light. The amount of light is highest directly downward. The amount of light decreases as the angle towards the walls increases. The three directional data lines substantially overlap because light is distributed evenly throughout the room.

RESPONSE: Genlyte disputes paragraph 17. Figure 2 illustrates the intensity, not "amount", of light. (Crane Dec., ¶ 22; Exhibits 3 to Crane Dec.). Further, there is more light directed between angles moving toward the ceiling than emitted "directly" downward. (Crane Dec., ¶ 22). The "reading" fixture directs light downwardly to a reading area. (Crane Dec., ¶¶ 15-16, 20).

18. Figure 3 shows the light distribution for the ambient light. The amount of light from the ambient light is greater than that of the reading light at each location because there are two lamps in the fixture instead of one. However, the light distribution is essentially identical, i.e. it has the same shape. The highest level of light is directly downward. The amount of light decreases as the angle towards the walls increases. The three directional data lines substantially overlap because the light is distributed evenly throughout the room.

RESPONSE: Genlyte disputes paragraph 18. Figure 3 illustrates that the highest intensity, not "amount", of light. (Crane Dec., ¶ 22; Exhibits 4 to Crane Dec.). Further, there is more light directed between angles moving toward the ceiling than emitted "directly" downward. (Crane Dec., ¶ 22). Regardless, the "ambient" fixture directs more light downwardly and outwardly than upwardly to a vertical wall. (Crane Dec., ¶¶ 17-18, 21-22). Moreover, the light distribution is not "distributed evenly throughout the room"

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because photometry is not performed on an installed fixture (i.e., in the ceiling, above the patient bed and adjacent the headwall). (Crane Dec., ¶ 19).

19. Figure 4 shows the light distribution for the examination light. This light has the highest illumination levels because it uses the most lamps. It also has the least spread towards the walls. Most of the light is directed downwardly.

RESPONSE: Genlyte disputes paragraph 19 insofar as it implies that the fixtures of the MulTmed products do not direct or aim light outwardly, but only allow light to "spread" towards the wall. The design and orientation of the fixtures are such that light from such fixtures is directed or aimed, not only downwardly, but also outwardly toward the wall. (Crane Dec., \P 20-22).

20. The distribution of light from the reading light fixture and ambient light fixture are virtually the same. The total amount of light from the ambient light fixture is greater than that of the reading light fixture because it has two lamps instead of one.

RESPONSE: Genlyte disputes paragraph 20 insofar as it states that the distribution of light from the "reading" and "ambient" fixtures are virtually the same. The distribution reported in the photometry reports are only one part of the necessary evaluation because photometry is not performed on an installed fixture. (i.e., in the ceiling, above the patient bed and adjacent the headwall). (Crane Dec., ¶ 19).

21. All of the fixtures in the MulTMed products aim light downward to a patient bed positioned under the product. None of the fixtures aims [sic] light towards the walls of the patient room.

RESPONSE: Genlyte disputes paragraph 21. Both of the fixtures of the MulTmed products designated by ALS as the "reading" and "ambient" fixtures direct or

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aim light downwardly to an area below the fixture and outwardly to a vertical wall. (Crane Dec., ¶¶ 15-24). Further, Genlyte states that it is irrelevant whether either fixture aims light towards the walls of the patient room as stated in paragraph 21. All that is required by the "second light fixture" element of the '254 Patent, under this Court's construction, is that such fixture aim more light downwardly and outwardly than upwardly to a vertical wall. Neither of the fixtures designated by ALS as the "reading" or "ambient" fixture directs any light upwardly. (Crane Dec., ¶¶ 20-21). Moreover, by placing the MulTmed products in proximity to the headwall, as recommended by ALS, this orients the "ambient" fixture within the MulTmed to direct more light toward the vertical wall. (Crane Dec. ¶¶ 18, 23).

22. The photometric data represented in Figures 2-4 above were obtained by Genlyte Thomas in tests done in February 2005 to determine whether the MulTMed products infringed U.S. Patent No. 5,038,254 ("the '254 Patent").

RESPONSE: Genlyte does not dispute paragraph 22. Genlyte further states that the photometric data, along with the visual evaluation, confirms that the MulTmed products infringe the '254 Patent. At a minimum, the MulTmed products contain at least each and every element and limitation of claim 1 of the '254 Patent, as shown in the Expert Declaration of Thomas M. Lemons, attached hereto as Exhibit 2 ("Lemons Report"; pp. 10-11) and Crane Dec. (¶¶ 15-21).

23. In November 2004, Counsel for ALS informed counsel for Genlyte Thomas that the MulTMed products did not infringe the '254 Patent because they direct light downwards to the patient bed and no fixtures direct light to a wall.

RESPONSE: Genlyte does not dispute paragraph 23. However, Genlyte does dispute the conclusions reached by counsel for ALS. Indeed, the MulTmed products do contain fixtures which direct light to a wall. (Crane Dec., ¶¶ 17-18; Lemons Report, p. 10-11). Further, Genlyte responded to counsel for ALS' November 2004 communication setting forth Genlyte's reasons for concluding that the MulTmed products infringe the '254 Patent. (Letter from Robert Theuerkauf to Elliot Salter, dated 2/22/05, attached hereto as Exhibit 3).

ADDITIONAL FACTS ASSERTED BY GENLYTE REQUIRING THE DENIAL OF ALS' MOTION FOR SUMMARY JUDGMENT

- 24. ALS' MulTmed products are ceiling-mounted over a hospital patient bed with one end of the luminaire adjacent to a vertical wall surface (or headwall). (Davis Declaration, ¶ 4; Exhibit A to Davis Declaration);
- 25. The "reading" fixture of ALS' MulTmed products direct light downwardly to a selected reading area under the fixture. (Crane Dec., ¶¶ 15-16, 20; Lemons Report, pp. 10-11; Davis Declaration, ¶ 4);
- 26. The photometric report for ALS' MulTmed products provides that the "reading" fixture directs 770 lumens (56.2% of the total lumens) to the area between 0 degrees (i.e., straight down to the patient bed) and 45 degrees. (Lemons Report, p. 11; Exhibit F to Lemons Report (GT03568); Crane Dec., ¶ 20). This is the "downward" component of the "reading" fixture of the MulTmed products;
- 27. The photometric report for ALS' MulTmed products provides that the "reading" fixture directs 0 lumens (0% of the total lumens) above the fixture (i.e., in the area between 90 degrees and 180 degrees). This is the upward component of the

MulTmed products. (Lemons Report, p. 11; Exhibit F to Lemons Report; Crane Dec., ¶ 20);

- 28. More than half of the lumen output of the "reading" fixture of ALS' MulTmed products is directed to the area between 0 degrees (i.e., straight down to the patient bed) and 45 degrees. In other words, more than half of the total lumen output of the "reading" fixture is directed downwardly to an area that includes a selected reading area. (Lemons Report, p. 11);
- 29. The "ambient" fixture of ALS' MulTmed products direct light downwardly and outwardly to a vertical wall. (Crane Dec., ¶¶ 17-18, 21; Lemons Report, pp. 11; Exhibit A to Davis Declaration);
- 30. The photometric report for ALS' MulTmed products provides that the "ambient" fixture directs 2620 lumens (100% of the total lumens) to the area between 0 degrees (i.e., straight down to the patient bed) and 90 degrees (i.e., along the ceiling or horizontal) and 0 lumens (0% of the total lumens) above the fixture (i.e., in the area between 90 degrees and 180 degrees). (Lemons Report, p. 11; Exhibit G to Lemons Report (GT03561); Crane Dec., ¶ 21). In other words, all of the light from the "ambient" fixture is directed either downwardly or outwardly, and none of the light is directed upwardly;
- 31. Therefore, the "ambient" fixture of the ALS' MulTmed products are set or arranged to direct more light downwardly and outwardly than upwardly to a vertical wall. (Lemons Report, p. 11; Crane Dec., ¶¶ 17-18, 20, 23-24).

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Respectfully submitted,

/s/ John L. Capone

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Counsel for Plaintiff, Genlyte Thomas Group LLC

Certificate of Service

I hereby certify that this document(s) filed through the ECF system will be sent electronically to the registered participants as identified on the Notice of Electronic Filing (NEF) and paper copies will be sent to those indicated as non registered participants on this 18th day of May, 2006.

/s/ John L. Capone

Counsel for Plaintiff, Genlyte Thomas Group LLC

EXHIBIT 1 TO

GENLYTE THOMAS GROUP LLC'S RESPONSE TO DEFENDANT'S STATEMENT OF UNDISPUTED FACTS AND COUNTERSTATEMENT OF FACTS

UNITED STATES DISTRICT COURT DISTRICT OF MASSACHUSETTS

GENLYTE THOMAS GROUP LLC, a Delaware Limited Liability Company

Plaintiff.

v.

Civil Action No. 05-CV-10945 WJY

ARCHITECTURAL LIGHTING SYSTEMS, a division of ARCH LIGHTING GROUP, a Rhode Island Corporation

Defendant.

DECLARATION OF ROY CRANE

- I, Roy Crane, hereby declare as follows:
- 1. I am the Director of Engineering for Lightolier, a division of the Plaintiff, Genlyte Thomas Group LLC ("Genlyte"). I make this declaration in support of Genlyte's Opposition to the Defendant, Arch Lighting Group, Inc.'s ("ALS"), Motion for Summary Judgment;
- 2. I have been the Director of Engineering for over 25 years and have been in the lighting industry for approximately 40 years. As Director of Engineering, I oversee and manage luminaire product design and development;
- 3. Additionally, I have been personally involved for over 40 years in the design and development of luminaires and am a co-inventor of the inventions taught in U.S. Patent No. 5,038,254 ("the '254 Patent"). William Fabbri, Vice-president of Lightolier, is the other inventor of the '254 Patent;
- 4. Patient care lighting requires lighting for multiple purposes. The two most basic are the reading lighting task and general ambient lighting;

- 5. The reading function is fairly easy to describe as simply providing light to an area in which the patient may read;
- 6. The ambient lighting function is slightly more complex in that you are providing light to a broad area or vicinity around, and including, the patient bed. The area around the patient bed includes the headwall. A dark headwall in this situation would be a poor lighting practice because it would produce a cave-like feeling in that a dark headwall would produce a feeling that the space is under lighted;
- 7. Prior to the '254 Patent, muti-function patient care luminaires were mounted on the wall at the head of a patient bed. During a hospital stay, Mr. Fabbri observed that such wall mounted luminaires had several disadvantages. For example, the wall mounted luminaires became "shelves," collecting clutter and dust. Moreover, wall mounted luminaires would often interfere with medical equipment near the head of the patient bed. Realizing the many disadvantages of the wall mounted patient care luminaires, Mr. Fabbri and I invented a ceiling-mounted, multi-function patient care luminaire, which is the subject matter of the '254 Patent. It should be noted that persons skilled in the art use the term "luminaire" interchangeably with "fixture." In the context of the '254 Patent and ALS' MulTmed products, the luminaire contains multiple fixtures;
- 8. The commercial embodiment of the '254 Patent introduced by Genlyte was the first ceiling-mounted, multi-function patient care luminaire introduced, which created a new market;
- 9. Claim 1 of the '254 Patent claims the simplest form of what the '254 Patent teaches. It is my understanding that the "first light fixture" or "reading" light and the "second

light fixture" or "ambient" light elements of the claims are the only claim elements in dispute in ALS' motion for summary judgment;

- 10. The "first light fixture" element simply claims a fixture which sends light in a downward direction to a reading area;
- 11. The "second light fixture" element is only slightly more complex. "Ambient" lighting of the patient bed area includes not only a downward component but additionally an outward component to light the headwall, which provides reflected light generally under the luminaire. Persons skilled in the art recognize that reflected light is more comfortable to the eyes than direct light. As mentioned above, a dark headwall would create a poor lighting condition;
- 12. Claim 1, in addition to its other elements, claims "a second light fixture within said body oriented to direct light downwardly and outwardly to a vertical wall surface outwardly adjacent from said body whereby light is reflected back to a broad area under said body." The downward light component provides light below the fixture to the area of the patient and bed. The outward light component provides light toward the headwall, assuring illumination of the headwall so that the space appears well lighted (i.e., to eliminate the cave-effect) and also to provide additional reflected light back into the room;
- 13. ALS in its motion for summary judgment is attempting to shift the focus from what the '254 Patent teaches and claims to an argument over how much light goes straight down versus how much light goes to the wall. This has nothing to do with what Mr. Fabbri and I taught, and claimed as our invention, in the '254 Patent;
- 14. Prior to the initiation of this lawsuit, Genlyte became aware of ALS' ceiling-mounted, multi-function patient care luminaires. Genlyte obtained a sample of ALS' 2x4

version and it was installed it in a patient room setting to observe how it performed and to determine whether such fixture met all of the elements of at least claim 1 of the '254 Patent;

- 15. As was observed and photographed (the photographs being the same ones submitted by Genlyte's expert, Thomas Lemons), the "reading" fixture of ALS' product, when illuminated, directed light downwardly to a reading area of the patient bed;
- 16. As further confirmed by ALS' own product literature, including ALS' own photographs, the "reading" fixture meets the "first light fixture" element of claim 1 of the '254 Patent. As shown on ALS Disc 0023 (attached as Exhibit 1), a man is seen sitting up on a patient bed directly below ALS' product. The "reading" fixture of the ALS product is on and the man's book is illuminated. This illumination of the reading area occurs because of the light being directed downwardly from the "reading" fixture. Further, the "first light fixture" element of the claims does not limit light from going to areas other than the reading area. It should be noted that this photograph is the same photograph that is part of ALS' product brochure at ALS0301 submitted with the Declaration of Scott Davis;
- 17. As was observed and photographed, the "ambient" fixture of ALS' product, when illuminated, directed light downwardly and also outwardly to a vertical headwall, which reflected light back to and illuminated a broad area under the fixture. Due to the reflectivity of the headwall part of the illumination of the broad area under the fixture is from light being reflected off of the headwall;
- 18. As further confirmed by ALS' own product literature, including ALS' own photographs, the "ambient" fixture meets the "second light fixture" element of claim 1 of the '254 Patent. As shown on ALS Disc 0019 (attached as Exhibit 2), a man is seen on a patient bed directly below ALS' product. The "ambient" fixture of ALS' product is on and the broad area

around, and including, the patient bed is illuminated. As can be seen, even the lady sitting next to the patient bed, and the wall behind her, are illuminated. Also, as can be seen, the vertical wall, or headwall, at the head of the patient bed is illuminated. This illumination of the broad area occurs because the luminaire is placed close to the headwall and the fact that light is being directed downwardly and outwardly from the "ambient" fixture. Further, the illumination of the headwall occurs because of light being directed outwardly from the "ambient" fixture. It should be noted that this photograph is the same photograph that is part of ALS' product brochure at ALS0301 submitted with the Declaration of Scott Davis;

- 19. In addition to observing the ALS product, photometric tests were performed on the ALS product under my direction at the testing lab at Genlyte at the request and direction of Genlyte's expert, Thomas Lemons. These tests for the "reading," "ambient" and "exam" fixtures (attached as Exhibits 3, 4 and 5, respectively) confirm my previous statements above. The photometric report data while it shows the performance of the fixture it does not include the reflective surfaces of the room (i.e., photometry is not performed on a luminaire mounted in the ceiling above a patient bed and adjacent to the headwall). Therefore, photometry is only a piece of what is needed to evaluate the performance of the installed fixture.
- 20. The "reading" photometric data confirms (Exhibit 3, p. 1 and 3: Zonal Lumen Summary) that there are 770 lumens in the area between 0 degrees (straight down) and 45 degrees. This confirms that light is being directed downwardly from the "reading" fixture. Moreover, the "reading" photometry report also shows that light is being directed outwardly from the fixture. There are 600 lumens in the area between 45 degrees and 90 degrees (horizontal or along the ceiling). Finally, the "reading" fixture does not emit any light upwardly or above the fixture (in the area between 90 degrees and 180 degrees).

- 21. Further, the "ambient" photometric data confirms (Exhibit 4, p. 1 and 3: Zonal Lumen Summary) that all of the light (2620 lumens) is emitted in the area between 0 degrees (straight down) and 90 degrees (horizontal or along the ceiling) and that there is no light emitted upwardly or above the fixture (in the area between 90 degrees and 180 degrees). This confirms that light is being directed downwardly and outwardly from the fixture toward the vertical wall adjacent the luminaire.
- 22. It is my understanding that ALS has taken the position that because the distribution patterns of its "reading" and "ambient" fixtures are similar and that since the photometric reports show the highest intensity of light straight down, that neither the "reading" or "ambient" fixture of the ALS product meets the requirements of the "second light fixture" element of the '254 Patent. ALS' assertion is not true. First, the photometric data confirms that the "reading" fixture directs light downwardly. Second, although the "highest intensity" of light from the "ambient" and "reading" fixtures may be straight down this does not mean that the greatest "amount" of light is likewise straight down. In fact, the photometric data shows for the "ambient" fixture that there is more light (236 lumens) in the area between 40 degrees and 45 degrees, for example, than there is light (22 lumens) in the area between 0 degrees (straight down) and 5 degrees. (Exhibit 4, p. 3: Zonal Lumen Summary). Similarly, the photometric data shows for the "reading" fixture that there is more light (128 lumens) in the area between 40 degrees and 45 degrees, for example, than there is light (12 lumens) in the area between 0 degrees (straight down) and 5 degrees. (Exhibit 3, p. 3: Zonal Lumen Summary). Consequently, the photometric data confirms that both the "reading" and "ambient" fixtures direct light downwardly and outwardly to a vertical wall regardless of the direction of "highest intensity." Moreover, the fact that the "reading" fixture directs light downwardly and outwardly is of no

consequence when comparing the "reading" fixture to the "first light fixture" of the claims of the '254 Patent. All the "first light fixture" element requires is that light be directed downwardly to the reading area. As shown above, and as seen in ALS' own product literature, ALS' "reading" fixture meets this requirement;

- 23. I further understand that ALS has taken the position that the highest intensity of light from the "reading" and "ambient" fixtures of the ALS product is straight down and, therefore, neither fixture "aims" its light downwardly and outwardly to the headwall. ALS' statement is false for several reasons. First, ALS' position assumes that "downwardly and outwardly" is a single direction toward the headwall. As stated above in paragraphs 11 and 12, this is not what the '254 Patent teaches or claims. Second, the '254 Patent does not require the "highest intensity" of light to be directed in any certain direction. Such a position by ALS ignores the basic teachings of the '254 Patent. Third, when the ALS product is installed as instructed by ALS, it is mounted in a ceiling and adjacent the headwall. In doing so, this ensures that the "ambient" fixture is aimed so that light will both travel downward from the fixture and outward to strike the adjacent wall to produce reflected light that accomplishes the same result stated for the "second light fixture" of claim 1 and/or 3 of the '254 Patent;
- 24. Finally, I understand that the Court has instructed that the "second light fixture" element means that the "second light fixture" is "set or arranged to aim more light in a downward and outward direction than in an upward direction" to a vertical wall. The "ambient" fixture of the ALS product likewise meets the Court's meaning of the "second light fixture" element. As can be seen from ALS product literature and, as confirmed by the photometric report summarized above, the "ambient" fixture does not direct any light upward. Therefore,

more light from the "ambient" fixture is aimed downwardly and outwardly than upwardly to a vertical wall.

I declare under penalty of perjury that the foregoing it true and correct. Executed this 15th day of November, 2006.

EXHIBIT 1 TO DECLARATION OF ROY CRANE

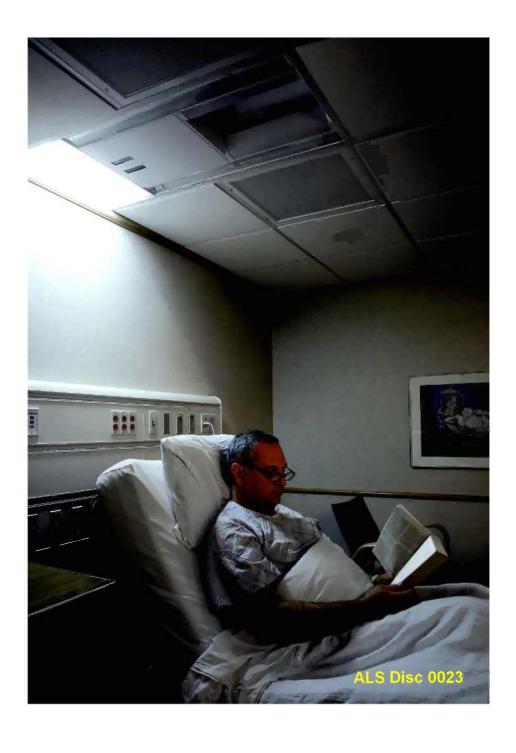


EXHIBIT 2 TO DECLARATION OF ROY CRANE

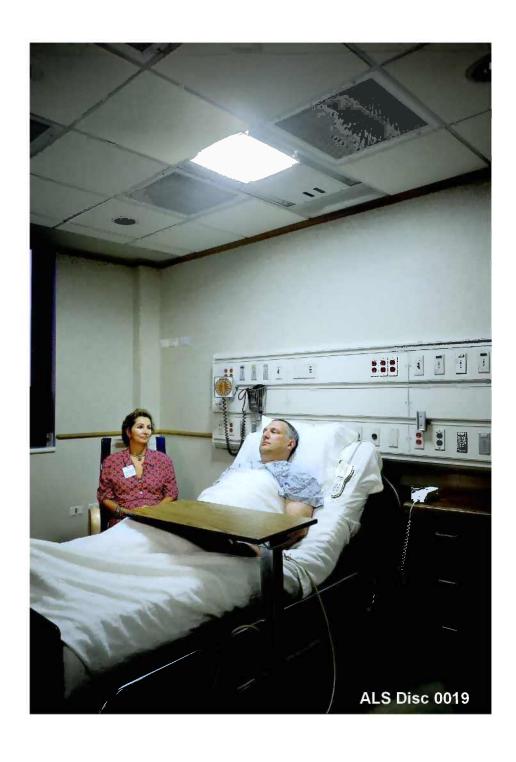


EXHIBIT 3 TO DECLARATION OF ROY CRANE



REPORT NUMBER: G2005043

CATALOG NUMBER: MT2-MEDI-READING-1/39W

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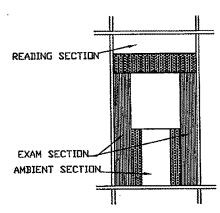
LUMINAIRE: ARCHITECTURAL LIGHTING SYSTEMS MEDI LIGHT/READING PORTION

BALLAST: SAGE LIGHTING-NXU240RS

32.0 WATTS

REPORT IS BASED ON 2900 LUMENS PER LAMP.

| CAN | DELA D | ISTRIB | UTION | | | FLUX |
|-----|--------|--------|-------|------|------|------|
| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 | |
| 0 | 516 | 516 | 516 | 516 | 516 | |
| 5 | 508 | 509 | 510 | 515 | 518 | 49 |
| 15 | 487 | 488 | 488 | 493 | 496 | 138 |
| 25 | 452 | 452 | 449 | 450 | 453 | 208 |
| 35 | 404 | 401 | 395 | 388 | 390 | 248 |
| 45 | 345 | 341 | 329 | 314 | 312 | 253 |
| 55 | 274 | 269 | 253 | 229 | 219 | 223 |
| 65 | 183 | 180 | 168 | 139 | 128 | 159 |
| 75 | 81 | 77 | 76 | 63 | 55 | 76 |
| 85 | 19 | 18 | 14 | 10 | 9 | 16 |
| 90 | 1 | 1 | 1 | 1 | 1 | |



DATE: 02-11-2005

| ZONAL LUMEN | SUMMARY LUMENS | %LAMP | %FIXT |
|-------------|-------------------|-------|-------|
| 0- 30 | 395 | 13.6 | 28.8 |
| • • • | | | |
| 0~ 40 | 643 | 22.2 | 46.9 |
| 0- 60 | 1119 | 38.6 | 81.7 |
| 0- 90 | 1370 | 47.2 | 100.0 |
| 90-180 | 0 | 0.0 | 0.0 |
| 0-180 | 1370 | 47.2 | 100.0 |

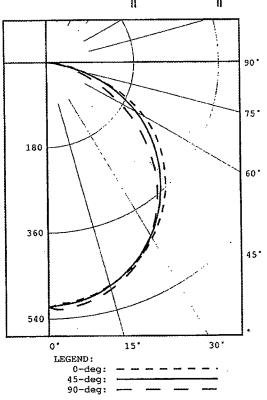
TOTAL LUMINAIRE EFFICIENCY = 47.2 %

CIE TYPE - DIRECT

90-DEG : 0-DEG PLANE SPACING CRITERIA: 1.2 1.2 90 SHIELDING ANGLES: 90 : 0-DEG 90-DEG PLANE :10.200 22.920 LUMINOUS LENGTH

LUMINANCE DATA IN CANDELA/SQ METER ANGLE AVERAGE AVERAGE 0-DEG 45-DEG 90-DEG IN DEG 3084. 2924. 45 3234. 2923. 55 3166. 2531.

2870. 2635. 2007. 65 75 2074. 1946. 1408. 684. 85 1445. 1065.



| Checked | |
|----------|--|
| Approved | |



REPORT NUMBER: G2005043

CATALOG NUMBER: MT2-MEDI-READING-1/39W

DATE: 02-11-2005

| CANDELA | DIST | RIBUTI | ON | | |
|---------|------|--------|------|------|------|
| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
| 0.0 | 516 | 516 | 516 | 516 | 516 |
| 2.5 | 509 | 510 | 512 | 519 | 521 |
| 5.0 | 508 | 509 | 510 | 515 | 518 |
| 7.5 | 504 | 506 | 507 | 510 | 515 |
| 10.0 | 500 | 502 | 502 | 506 | 510 |
| 12.5 | 494 | 495 | 496 | 500 | 504 |
| 15.0 | 487 | 488 | 488 | 493 | 496 |
| 17.5 | 480 | 481 | 480 | 484 | 487 |
| 20.0 | 472 | 472 | 470 | 474 | 477 |
| 22.5 | 463 | 462 | 460 | 462 | 466 |
| 25.0 | 452 | 452 | 449 | 450 | 453 |
| 27.5 | 442 | 440 | 436 | 436 | 439 |
| 30.0 | 429 | 428 | 424 | 421 | 424 |
| 32.5 | 417 | 415 | 410 | 405 | 407 |
| 35.0 | 404 | 401 | 395 | 388 | 390 |
| 37.5 | 391 | 388 | 380 | 371 | 372 |
| 40.0 | 376 | 372 | 363 | 353 | 353 |
| 42.5 | 362 | 358 | 346 | 333 | 334 |
| 45.0 | 345 | 341 | 329 | 314 | 312 |
| 47.5 | 328 | 324 | 311 | 294 | 289 |
| 50.0 | 312 | 306 | 292 | 272 | 266 |
| 52.5 | 293 | 288 | 273 | 251 | 243 |
| 55.0 | 274 | 269 | 253 | 229 | 219 |
| 57.5 | 253 | 248 | 233 | 206 | 196 |
| 60.0 | 231 | 226 | 212 | 183 | 172 |
| 62.5 | 208 | 204 | 190 | 161 | 149 |
| 65.0 | 183 | 180 | 168 | 139 | 128 |
| 67.5 | 157 | 156 | 147 | 119 | 108 |
| 70.0 | 127 | 128 | 124 | 100 | 89 |
| 72.5 | 99 | 98 | 101 | 81 | 71 |
| 75.0 | 81 | 77 | 76 | 63 | 55 |
| 77.5 | 63 | 60 | 52 | 45 | 41 |
| 80.0 | 47 | 44 | 37 | 30 | 29 |
| 82.5 | 32 | 30 | 24 | 18 | 18 |
| 85.0 | 19 | 18 | 14 | 10 | 9 |
| 87.5 | 7 | 6 | 5 | 4 | 3 |
| 90.0 | 1 | 1 | 1 | 1 | 1 |



REPORT NUMBER: G2005043

CATALOG NUMBER: MT2-MEDI-READING-1/39W

DATE: 02-11-2005

| ZONAL | LUMEN | SUMMARY |
|-------|-------|---------|
| 0- | 5 | 12. |
| 5- : | LO | 36. |
| 10- 3 | 15 . | 59. |
| 15- 2 | 20 | 79. |
| 20- 2 | 25 | 97. |
| 25- 3 | 30 | 111. |
| 30- 3 | 35 | 121. |
| 35 4 | 40 | 127. |
| 40- | 45 | 128. |
| 45- 5 | 50 | 125. |
| 50- 5 | 55 | 117. |
| 55- | 60 | 105. |
| 60- | 65 | 89. |
| 65- ' | 70 | 70. |
| 70- | 75 | 48. |
| 75- | 80 | 28. |
| 80~ | 85 | 13. |
| 85- | 90 | 3 |



REPORT NUMBER: G2005043

DATE: 02-11-2005

CATALOG NUMBER: MT2-MEDI-READING-1/39W

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

| RC | | 80 |) | | | 70 |) | | | 50 | | | 30 | | | 10 |) | 0 |
|-----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|------|------|----|
| RW | 70 | 50 | 30 | 10 | 70 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 0 | 56 | 56 | 56 | 56 | 55 | 55 | 55 | 55 | 52 | 52 | 52 | | 50 | | | | 48 | |
| 1 | 52 | 49 | 48 | 46 | 50 | 48 | 47 | 45 | 46 | 45 | 44 | 45 | 43 | 42 | 43 | 42 | 41 | 40 |
| 2 | 47 | 43 | 40 | 38 | 46 | 42 | 40 | 37 | 41 | 38 | 36 | 39 | 37 | 35 | 38 | 36 | 35 | 34 |
| 3 | 43 | 38 | 34 | 31 | 42 | 37 | 34 | 31 | 36 | 33 | 31 | 35 | 32 | 30 | 34 | 31 | . 30 | 29 |
| 4 | 39 | 34 | 30 | 27 | 38 | 33 | 29 | 27 | 32 | 29 | 26. | 31 | 28 | 26 | 30 | 27 | 25 | 24 |
| 5 | 36 | 30 | 26 | 23 | 35 | 30 | 26 | 23 | 29 | 25 | 23 | 28 | 25 | 22 | 21 | 24 | 22 | 21 |
| 6 | 34 | 27 | 23 | 20 | 33 | 27 | 23 | 20 | 26 | 22 | 20 | 25 | 22 | 20 | 24 | 22 | 20 | 19 |
| . 7 | 31 | 25 | 21 | 18 | 30 | 24 | 21 | 18 | 24 | 20 | 18 | 23 | 20 | 17 | 22 | 20 | 17 | 16 |
| 8 | 29 | 23 | 19 | 16 | 28 | 22 | 18 | 16 | 22 | 18 | 16 | 21 | 18 | 16 | 2: | . 18 | 16 | 15 |
| 9 | 27 | 21 | 17 | 14 | 26 | 20 | 17 | 14 | 20 | 17 | 14 | 19 | 16 | 14 | 19 | 16 | 14 | 13 |
| 10 | 25 | 19 | 15 | 13 | 25 | 19 | 15 | 13 | 18 | 15 | 13 | 18 | 15 | 13 | 18 | 15 | 13 | 12 |

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.000. ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE BALLAST FACTOR.



DATE: 02-11-2005

REPORT NUMBER: G2005043

CATALOG NUMBER: MT2-MEDI-READING-1/39W

VISUAL COMFORT PROBABILITY TABLE

RATED LUMENS PER LAMP 2900.

| | . FC. | REFLEC | TANCE | S 80 DEG |)/50/20 PLANE |) | LUMIN | AIRES | 90 DE | EG PLANE |
|----------------------------|-----------------------------|----------------------------|----------------------------|----------------------------|----------------------------|---|----------------------------------|----------------------|----------------------------|----------------------------|
| W | L | 8.5 | 10.0 | 13.0 | 16.0 | | 8.5 | 10.0 | 13.0 | 16.0 |
| 20 20 20 20 | 20 30 40 60 | 57 53 51 50 | 61 55 53 52 | 72 59 55 52 | 83 69 60 56 | | 62 60 60 60 | 67 62 60 61 | 76 67 63 62 | 85 74 68 64 |
| 30 30 30 30 30 | 20 30 40 60 80 | 59 55 53 51 51 | 63 56 53 52 51 | 71 58 54 51 50 | 81 67 58 54 52 | | 63 60 60 60 61 | 59 | 73 64 60 59 59 | 82 71 64 61 60 |
| 40 40 40 40 40 | 20 30 40 60 80 | 62 57 55 53 53 | 58 55 53 52 | 59 54 51 50 | 51 | | 65 62 61 61 62 63 | 62 60 60 61 | 63 60 58 58 | 70 63 59 59 |
| 60 60 60 60 | 30 40 60 80 100 | 60 57 55 54 54 | 57 54 53 | 55 52 50 | 58 53 51 | · | 63 62 63 64 | 61 61 61 | 60 58 58 | 62 58 58 |
| 100 100 100 100 | 40 60 80 100 | 62 60 58 58 | 59 57 | 55 53 | 5 56 5 54 | | 66 65 66 | 63 63 | 60 8 59 | 60 59 |

EXHIBIT 4 TO DECLARATION OF ROY CRANE

REPORT NUMBER: G2005044

DATE: 02-14-2005

CATALOG NUMBER: MT2-39W MEDI-AMBIENT

LAMP: SYLVANIA FT36DL/835

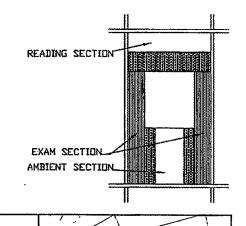
LUMINAIRE: ARCHITECTURAL LIGHTING SYSTEMS MEDI-LIGHT

BALLAST: SAGE NXU240RS

61.0 WATTS

REPORT IS BASED ON 2900 LUMENS PER LAMP.

| CANI | ELA D | ISTRIB | UTION | | | FLUX |
|------|-------|--------|-------|------|------|------|
| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 | |
| 0. | 913 | 913 | 913 | 913 | 913 | |
| 5 | 906 | 907 | 909 | 911 | 915 | 87 |
| 15 | 867 | 870 | 883 | 885 | 888 | 248 |
| 25 | 792 | 804 | 812 | 822 | 830 | 375 |
| 35 | 685 | 696 | 717 | 744 | 757 | 451 |
| 45 | 548 | 564 | 608 | 652 | 671 | 470 |
| 55 | 393 | 421 | 486 | 547 | 570 | 432 |
| 65 | 243 | 275 | 351 | 410 | 433 | 340 |
| 75 | 121 | 139 | 188 | 219 | 223 | 185 |
| 85 | 19 | 21 | 27 | 35 | 37 | 32 |
| 90 | 0 | 0 | 0 | 0 | 0 | |



| ZONAL LUMEN | SUMMARY | | |
|-------------|---------|-------|-------|
| ZONE | LUMENS | %LAMP | %FIXT |
| 0- 30 | 710 | 12.2 | 27.1 |
| 0- 40 | 1160 | 20.0 | 44.3 |
| 0- 60 | 2063 | 35.6 | 78.7 |
| 0- 90 | 2620 | 45.2 | 100.0 |
| 90-180 | 0 | 0.0 | 0.0 |
| 0-180 | 2620 | 45.2 | 100.0 |

TOTAL LUMINAIRE EFFICIENCY = 45.2 %

CIE TYPE - DIRECT

PLANE : 0-DEG 90-DEG SPACING CRITERIA: 1.2 1.3 SHIELDING ANGLES : 90 90 PLANE : 0-DEG 90-DEG LUMINOUS LENGTH :22.920 17.400

| | | | ELA/SQ METER |
|--------|---------|---------|--------------|
| ANGLE | AVERAGE | AVERAGE | AVERAGE |
| IN DEG | 0-DEG | 45-DEG | 90-DEG |
| 45 | 3011. | 3341. | 3687. |
| 55 | 2662. | 3292. | 3861. |
| 65 | 2234. | 3227. | 3981. |
| 75 | 1816. | 2822. | 3347. |
| 85 | 847. | 1204. | 1649. |
| | | | |

Checked Approved

LEGEND: 0-deg: 45-deg: 90-deg:



REPORT NUMBER: G2005044

CATALOG NUMBER: MT2-39W MEDI-AMBIENT

DATE: 02-14-2005

| CANDELA | DIST | RIBUTI | ON | | • |
|---------|------|--------|------|------|------|
| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 |
| 0.0 | 913 | 913 | 913 | 913 | 913 |
| 2.5 | 909 | 911 | 913 | 914 | 917 |
| 5.0 | 906 | 907 | 909 | 911 | 915 |
| 7.5 | 899 | 901 | 904 | 909 | 914 |
| 10.0 | 891 | 893 | 900 | 907 | 911 |
| 12.5 | 880 | 883 | 894 | 898 | 900 |
| 15.0 | 867 | 870 | 883 | 885 | 888 |
| 17.5 | 851 | 856 | 868 | 872 | 875 |
| 20.0 | 833 | 841 | 851 | 856 | 862 |
| 22.5 | 814 | 824 | 833 | 840 | 846 |
| 25.0 | 792 | 804 | 812 | 822 | 830 |
| 27.5 | 768 | 780 | 790 | 805 | 813 |
| 30.0 | 742 | 754 | 766 | 785 | 795 |
| 32.5 | 714 | 727 | 743 | 765 | 7.77 |
| 35.0 | 685 | 696 | 717 | 744 | 757 |
| 37.5 | 653 | 666 | 691 | 722 | 737 |
| 40.0 | 619 | 633 | 665 | 699 | 716 |
| 42.5 | 585 | 600 | 637 | 676 | 694 |
| 45.0 | 548 | 564 | 608 | 652 | 671 |
| 47.5 | 510 | 529 | 579 | 627 | 648 |
| 50.0 | 473 | 493 | 549 | 601 | 623 |
| 52.5 | 432 | 457 | 517 | 574 | 597 |
| 55.0 | 393 | 421 | 486 | 547 | 570 |
| 57.5 | 354 | 385 | 454 | 516 | 538 |
| 60.0 | 315 | 348 | 421 | 483 | 504 |
| 62.5 | 279 | 310 | 388 | 447 | 470 |
| 65.0 | 243 | 275 | 351 | 410 | 433 |
| 67.5 | 212 | 241 | 313 | 372 | 395 |
| 70.0 | 180 | 207 | 273 | 330 | 350 |
| 72.5 | 150 | 173 | 232 | 280 | 295 |
| 75.0 | 121 | 139 | 188 | 219 | 223 |
| 77.5 | 90 | 104 | 137 | 143 | 139 |
| 80.0 | 61 | 70 | 84 | 89 | 93 |
| 82.5 | 37 | 41 | 47 | 59 | 64 |
| 85.0 | 19 | 21 | 27 | 35 | 37 |
| 87.5 | 7 | 8 | 9 | 10 | 11 |
| 90.0 | 0 | 0 | 0 | 0 | 0 |



REPORT NUMBER: G2005044

CATALOG NUMBER: MT2-39W MEDI-AMBIENT

DATE: 02-14-2005

| ZONAL | LUMEN | SUMMARY |
|-------|-------|---------|
| 0- | 5 | 22. |
| 5- 3 | 10 | 65. |
| 10- 3 | 15 | 106. |
| 15~ 2 | 20 | 143. |
| 20- 2 | 25 | 174. |
| 25- 3 | 30 | 200. |
| 30- 3 | 35 | 219. |
| 35- 4 | 40 | 231. |
| 40- | 45 | 236. |
| 45- 5 | 50 | 234. |
| 50~ | 55 | 224. |
| | 60 | 208. |
| 60~ | 65 | 185. |
| 65- | 70 | 156. |
| 70- | 75 | 119. |
| 75- | 80 | 67. |
| 80- | 85 | 27. |
| 85~ | 90 | 5. |



REPORT NUMBER: G2005044

DATE: 02-14-2005

CATALOG NUMBER: MT2-39W MEDI-AMBIENT

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

| RC | | 80 |) | | | 70 |) | | | 50 | | | 30 | | | 10 | | 0 |
|-----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|----|----|----|----|
| RW | 70 | 50 | 30 | 10 | 70 | 50 | | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 50 | 30 | 10 | 0 |
| 0 | 54 | 54 | 54 | 54 | 53 | 53 | 53 | 53 | | 50 | - | | 48 | | - | 46 | | 45 |
| 1 | 49 | 47 | 45 | 43 | 48 | 46 | 44 | 43 | 44 | 43 | 41 | 42 | 41 | 40 | 41 | 40 | 39 | 38 |
| 2 | 45 | 41 | 38 | 35 | 43 | 40 | 37 | 35 | 38 | 36 | 34 | 37 | 35 | 33 | 36 | 34 | 32 | 31 |
| 3 | 41 | 36 | 32 | 29 | 40 | 35 | 32 | 29 | 34 | 31 | 28 | 33 | 30 | 28 | 31 | 29 | 27 | 26 |
| 4 | 37 | 32 | 28 | 25 | 36 | 31 | 27 | 24 | 30 | 27 | 24 | 29 | 26 | 2.4 | 28 | 26 | 23 | 23 |
| 5 | 34 | 28 | 24 | 21 | 33 | 28 | 24 | 21 | 27 | 23 | 21 | 26 | 23 | 21 | 25 | 22 | 20 | 19 |
| 6 | 32 | 25 | 21 | 18 | 31 | 25 | 21 | 18 | 24 | 21 | 18 | 23 | 20 | 18 | 23 | 20 | 18 | 17 |
| . 7 | 29 | 23 | 19 | 16 | 28 | 23 | 19 | 16 | 22 | 19 | 16 | 21 | 18 | 16 | 21 | 18 | 16 | 15 |
| 8 | 27 | 21 | 17 | 15 | 26 | 21 | 17 | 14 | 20 | 17 | 14 | 20 | 17 | 14 | 19 | 16 | 14 | 13 |
| 9 | 25 | 19 | 16 | 13 | 25 | 19 | 15 | 13 | 19 | 15 | 13 | 18 | 15 | 13 | 18 | 15 | 13 | 12 |
| 10 | 24 | 18 | 14 | 12 | 23 | 18 | 14 | 12 | 17 | 14 | 12 | 17 | 14 | 12 | 16 | 14 | 12 | 11 |

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.000. ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE BALLAST FACTOR.



REPORT NUMBER: G2005044

CATALOG NUMBER: MT2-39W MEDI-AMBIENT

VISUAL COMFORT PROBABILITY TABLE .

RATED LUMENS PER LAMP 2900.

DATE: 02-14-2005

| 100. F | C. REFLECTAN LUMINAIRES | CES 80/5 | 50/20 LANE | LUMINAIRES | 90 DEG PLANE |
|---|----------------------------|--|----------------------------|--|----------------------------------|
| W I | 8.5 10. | 0 13.0 1 | 6.0 | 8.5 10.0 | 13.0 16.0 |
| 20 20 20 30 20 40 20 60 | 54 5 54 5 | 54 75 57 64 55 59 56 57 | 85 73 65 61 | 47 54 44 45 43 43 43 43 | 52 64 45 5 2 |
| 30 20 30 30 30 40 30 60 30 80 | 53. 5 53. 5 53. 5 | 52 71 55 60 53 56 53 53 55 53 | 82 69 61 57 56 | 50 56 46 46 45 44 44 44 45 44 | 51 62 44 50 42 44 |
| 40 26 40 36 40 40 40 66 40 80 | 55 54 50 54 50 56 56 56 | 62 70 55 59 54 54 53 52 54 52 55 53 | 79 67 59 55 54 | 53 59 49 49 48 47 47 45 47 46 48 46 | 52 62 45 50 42 44 42 43 |
| 60 3 60 4 60 6 60 8 60 10 | 56 56 57 | 57 58 55 53 54 51 55 51 56 52 | 66 58 53 52 52 | 52 52 50 49 49 47 49 47 | 46 50 43 44 43 43 |
| 100 4 100 6 100 8 100 10 | 59 0 60 | 59 56 57 53 58 53 58 53 | 59 54 52 52 | 56 54 54 52 53 51 54 51 | 2 47 47 46 46 |

EXHIBIT 5 TO DECLARATION OF ROY CRANE



REPORT NUMBER: G2005045 DATE: 02-14-2005

CATALOG NUMBER: MT2 39W MEDI-EXAM.

LAMP: SYLVANIA FT36DL/835

LUMINAIRE: ACHITECTURAL LIGHTING SYSTEMS 39W MEDI-LIGHT/EXAM PORTION

BALLAST: SAGE NXU240RS

61.0 WATTS

REPORT IS BASED ON 2900 LUMENS PER LAMP.

| CAN | DELA D | ISTRIB | UTION | | | FLUX |
|-----|--------|--------|-------|------|------|------|
| | 0.0 | 22.5 | 45.0 | 67.5 | 90.0 | |
| 0 | 1393 | 1393 | 1393 | 1393 | 1393 | |
| 5 | 1381 | 1380 | 1383 | 1383 | 1383 | 131 |
| 15 | 1330 | 1325 | 1320 | 1313 | 1310 | 372 |
| 25 | 1232 | 1221 | 1203 | 1181 | 1172 | 554 |
| 35 | 1091 | 1064 | 1014 | 946 | 922. | 627 |
| 45 | 899 | 823 | 634 | 517 | 480 | 514 |
| 55 | 603 | 458 | 312 | 253 | 244 | 326 |
| 65 | 259 | 223 | 167 | 159 | 161 | 192 |
| 75 | 115 | 102 | 106 | 119 | 1.30 | 119 |
| 85 | 20 | 30 | 27 | 27 | 26 | 32 |
| 90 | 0 | 0 | 0 | 0 | 0 | |

| ZONAL LUMEN ZONE 0- 30 0- 40 0- 60 0- 90 90-180 0-180 | SUMMARY LUMENS 1057 1684 2524 2866 | %LAMP 18.2 29.0 43.5 49.4 0.0 | %FIXT 36.9 58.8 88.1 100.0 |
|--|---|--|--|
| 0-180 | 2866 | 49.4 | 100.0 |

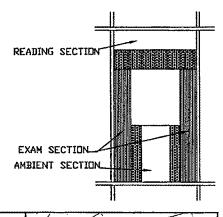
TOTAL LUMINAIRE EFFICIENCY = 49.4 %

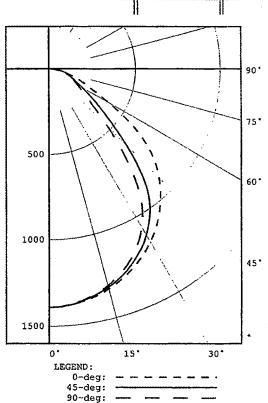
CIE TYPE - DIRECT

: 0-DEG PLANE 90-DEG SPACING CRITERIA: 1.2 1.2 SHIELDING ANGLES: 90 90 : 0-DEG 90-DEG PLANE LUMINOUS LENGTH :36.000 .3.240

LUMINANCE DATA IN CANDELA/SQ METER ANGLE AVERAGE AVERAGE IN DEG 0-DEG 45-DEG 90-DEG 16889. 11911. 9017. 45 55 13965. 7226. 5651.

> 65 8141. 5249. 5061. 75 5902. 5440. 6672. 85 3048. 4115. 3963.





Checked Approved



REPORT NUMBER: G2005045

CATALOG NUMBER: MT2 39W MEDI-EXAM

DATE: 02-14-2005

| CANDELA DISTRIBUTION 0.0 22.5 45.0 67.5 90.0 0.0 1393 1393 1393 1393 2.5 1387 1387 1389 1390 1391 5.0 1381 1380 1383 1383 1383 7.5 1373 1371 1369 1368 10.0 1362 1359 1356 1353 1352 1320 1313 1310 17.5 1309 1303 1297 1286 1283 20.0 1286 1278 1270 1255 1251 22.5 1260 1251 1238 1220 1214 25.0 1232 1221 1203 1181 1172 27.5 1201 1186 1166 1134 1125 30.0 1167 1150 1120 1083 1068 32.5 1131 1108 1070 1023 1003 35.0 1091 1064 1014 946 922 37.5 1048 | CANDEL | א הדכדי | OTRITT | ΩN. | • | |
|--|--------|---------|--------|-----|------|------|
| 0.0 1393 1391 1393 1383 1383 1383 1383 1368 1368 1368 1368 1368 1368 1368 1353 1352 1268 1283 1352 1368 1353 1352 1368 1353 1352 1320 1313 1310 175 1268 1283 220 1248 1283 220 1248 1255 1251 2255 1251 2255 1251 2253 1244 <td< td=""><td>CHNDUM</td><td></td><td></td><td></td><td>67 5</td><td>90 N</td></td<> | CHNDUM | | | | 67 5 | 90 N |
| 2.5 1387 1387 1389 1390 1391 5.0 1381 1380 1383 1383 1383 7.5 1373 1371 1371 1369 1368 10.0 1362 1359 1356 1353 1352 12.5 1348 1345 1339 1335 1333 15.0 1330 1325 1320 1313 1310 17.5 1309 1303 1297 1286 1283 20.0 1286 1278 1270 1255 1251 22.5 1260 1251 1238 1220 1214 25.0 1232 1221 1203 1181 1172 27.5 1201 1186 1166 1134 1125 30.0 1167 1150 1120 1083 1068 32.5 1131 1108 1070 1023 1003 35.0 1091 1064 1014 946 922 37.5 1048 1014 946 | 0.0 | | | | | |
| 5.0 1381 1380 1383 1383 1383 7.5 1373 1371 1371 1369 1368 10.0 1362 1359 1356 1353 1352 12.5 1348 1345 1339 1335 1333 15.0 1330 1325 1320 1313 1310 17.5 1309 1303 1297 1286 1283 20.0 1286 1278 1270 1255 1251 22.5 1260 1251 1238 1220 1214 25.0 1232 1221 1203 1181 1172 27.5 1201 1186 1166 1134 1125 30.0 1167 1150 1120 1083 1068 32.5 1131 1108 1070 1023 1003 35.0 1091 1064 1014 946 922 37.5 1048 1014 946 854 819 40.0 1001 957 858 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td></t<> | | | | | | |
| 7.5 1373 1371 1369 1368 10.0 1362 1359 1356 1353 1352 12.5 1348 1345 1339 1335 1333 15.0 1330 1325 1320 1313 1310 17.5 1309 1303 1297 1286 1283 20.0 1286 1278 1270 1255 1251 22.5 1260 1251 1238 1220 1214 25.0 1232 1221 1203 1181 1172 27.5 1201 1186 1166 1134 1125 30.0 1167 1150 1120 1083 1068 32.5 1131 1108 1070 1023 1003 35.0 1091 1064 1014 946 922 37.5 1048 1014 946 854 819 40.0 1001 957 858 739 703 42.5 952 896 750 623 588 | | | | | | |
| 10.0 1362 1359 1356 1353 1352 12.5 1348 1345 1339 1335 1333 15.0 1330 1325 1320 1313 1310 17.5 1309 1303 1297 1286 1283 20.0 1286 1278 1270 1255 1251 22.5 1260 1251 1238 1220 1214 25.0 1232 1221 1203 1181 1172 27.5 1201 1186 1166 1134 1125 30.0 1167 1150 1120 1083 1068 32.5 1131 1108 1070 1023 1003 35.0 1091 1064 1014 946 922 37.5 1048 1014 946 854 819 40.0 1001 957 858 739 703 42.5 952 896 750 623 588 45.0 899 823 634 517 <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> | | | | | | |
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| 72.5 147 127 117 132 142 75.0 115 102 106 119 130 77.5 85 82 93 104 113 80.0 59 65 75 84 90 82.5 37 48 52 58 62 85.0 20 30 27 27 26 87.5 7 8 6 5 5 | | | | | | |
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| 87.5 7 8 6 5 5 | | | | | | |
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REPORT NUMBER: G2005045

CATALOG NUMBER: MT2 39W MEDI-EXAM

DATE: 02-14-2005

| ZONAL | LUMEN | SUMMARY |
|-------|-------|---------|
| 0- | 5 | 33. |
| 5 : | 10 | 98. |
| 10- | 15 | 159. |
| 15- | 20 | 214. |
| | 25 | 259. |
| | 30 | 294. |
| | 35 | 314. |
| T - , | 40 | 313. |
| 40- | 45 | 281. |
| 45- | 50 | 232. |
| 50~ | 55 | 184. |
| 55- | 60 | 142. |
| 60- | 65 | 107. |
| | 70 | 85. |
| 70- | 75 | 68. |
| | 80 | 51. |
| | 85 | 28. |
| 85- | 90 | . 3. |



REPORT NUMBER: G2005045

DATE: 02-14-2005

CATALOG NUMBER: MT2 39W MEDI-EXAM

COEFFICIENTS OF UTILIZATION - ZONAL CAVITY METHOD

EFFECTIVE FLOOR CAVITY REFLECTANCE 0.20

| RC | | 80 | 3 | | | 70 | 1 | | | 50 | | | 30 | | | 10 | | 0 |
|-----|----|----|----|----|----|----|----|----|----|-----|----|-----|----|------------------|----|----|----|----|
| RW | 70 | 50 | | 10 | 70 | 50 | | 10 | 50 | 30 | | 50 | 30 | 10 | 50 | 30 | 10 | Ö |
| 0 | 59 | 59 | 59 | 59 | 57 | 57 | 57 | 57 | 55 | 55 | 55 | 53 | 53 | 53 | | 50 | | 49 |
| 1 | 55 | 53 | 51 | 49 | 53 | 51 | 50 | 48 | 49 | 48 | 47 | 47 | 46 | 45 | 46 | 45 | 44 | 43 |
| 2 | 50 | 47 | 44 | 41 | 49 | 46 | 43 | 41 | 44 | 42 | 40 | 43 | 41 | 39 | 41 | 40 | 38 | 37 |
| 3 | 46 | 42 | 38 | 36 | 45 | 41 | 38 | 35 | 40 | 37 | 35 | 38 | 36 | 34 | 37 | 35 | 33 | 32 |
| 4 | 43 | 38 | 34 | 31 | 42 | 37 | 34 | 31 | 36 | 3:3 | 30 | 35 | 32 | 30 | 34 | 31 | 30 | 29 |
| 5 | 40 | 34 | 30 | 27 | | 34 | | | 33 | 29 | 27 | 32 | 29 | 27 | 31 | 28 | 26 | 25 |
| 6 | 37 | 31 | 27 | 24 | 36 | 31 | 27 | 24 | 30 | 26 | 24 | 29 | 26 | 24 | 28 | 26 | 24 | 23 |
| . 7 | | 28 | | | 34 | 28 | 24 | 22 | 27 | 24 | 22 | 27 | 24 | 21 | 26 | 23 | 21 | 20 |
| 8 | | 26 | | | | 26 | | | 25 | 22 | 19 | 2.5 | 22 | 19 | 24 | 21 | 19 | 18 |
| 9 | | 24 | | | | 24 | | | | 20 | | 23 | 20 | $\frac{-18}{18}$ | 22 | 20 | 18 | 17 |
| 10 | | | | 16 | | 22 | | | | 18 | | | 18 | | | 18 | | 15 |

ALL CANDELA, LUMENS, LUMINANCE, COEFFICIENT OF UTILIZATION AND VCP VALUES IN THIS REPORT ARE BASED ON RELATIVE PHOTOMETRY WHICH ASSUMES A BALLAST FACTOR OF 1.000. ANY CALCULATIONS PREPARED FROM THESE DATA SHOULD INCLUDE AN APPROPRIATE BALLAST FACTOR.



REPORT NUMBER: G2005045

CATALOG NUMBER: MT2 39W MEDI-EXAM

VISUAL COMFORT PROBABILITY TABLE

29.00. RATED LUMENS PER LAMP

DATE: 02-14-2005

| 100. F ROOM | C. REFLECTANC LUMINAIRES | ES 80/50/2 0 DEG PLANE | 0 LUMINA | AIRES 90 DEG | PLANE |
|---|----------------------------------|----------------------------------|----------------------------------|----------------------------------|----------------------------------|
| W L | 8.5 10.0 | 13.0 16.0 | 8.5 | 10.0 13.0 1 | 6.0 |
| 20 20 20 30 20 40 20 60 | 30 31 29 29 | 29 31 | 27 | 36 46 | 53 44 |
| 30 20 30 30 30 40 30 60 30 80 | 31 33 29 30 28 29 | 34 38 30 31 28 28 | . 40 30 27 25 26 | 35 44 29 35 26 28 | 61 51 41 33 29 |
| 40 20 40 30 40 40 40 60 40 80 40 100 | 32 34 30 31 29 29 29 30 | 36 40 31 33 28 29 28 28 | 42 32 28 26 27 29 | 36 44 30 35 27 28 27 25 | 60 50 40 32 28 26 |
| 60 30 60 40 60 60 60 80 | 31 32 30 30 30 30 30 29 | 2 32 34 0 29 30 0 27 28 | 34 29 28 29 | 31 34 28 28 27 25 | 40 32 |
| 100 40 100 60 100 80 100 100 |) 33 33) 33 32 | 30 32 2 29 30 | 34 32 32 33 | 31 30 30 27 | 42 33 29 27 |

EXHIBIT 3 TO **GENLYTE THOMAS GROUP LLC'S RESPONSE TO DEFENDANT'S** STATEMENT OF UNDISPUTED FACTS AND COUNTERSTATEMENT OF FACTS



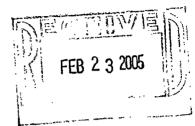
2500
Brown & Williamson
Tower
Louisville, Kentucky
40202
502,584,1135
502,561,0442 fax

Robert J. Theuerkauf

Direct Dial: (502) 625-2747 rtheuerkauf@middreut.com February 22, 2005

VIA OVERNIGHT MAIL

Elliot A. Salter, Esq.
SALTER & MICHAELSON
The Heritage Building
321 South Main Street
Providence, Rhode Island 02903-7128



Re:

U.S. Patent No. 5,038,254

Our Client: Genlyte Thomas Group LLC - Lightolier Division

Your Client: Arch Lighting Group, Inc.

Dear Mr. Salter:

We have completed our infringement analysis of the MulTmed (2x4) product (the "Multmed") manufactured by your client, Arch Lighting Group, Inc. ("ALS"). On February 2, 2005, we viewed the Multmed in a hospital room setting wherein we illuminated each light fixture individually and examined the light patterns. Thereafter, our client performed additional photometric testing of the Multmed on February 11 and 14, 2005. From our observations and review of our client's photometric test results, it is our conclusion that the Multmed infringes U.S. Patent No. 5,038,254 (the "254 Patent").

As you may be aware, the ceiling-mounted integrated medical lighting system inventions of the '254 Patent have pioneer status in the industry. Due to this fact, the claims of the '254 Patent are especially broad and we are confident that a court would construe such claim elements accordingly. The '254 Patent contains two independent claims, claims 1 and 3.

Claim 1 of the '254 Patent claims the following elements:

- [1] a body;
- [2] means for ceiling-mounting said body;
- [3] a first light fixture within said body oriented to direct light downwardly to a selected reading area under said body; and
- [4] a second light fixture within said body oriented to direct light downwardly and outwardly to a vertical wall surface outwardly adjacent from said body whereby light is reflected back to a broad area under said body.

Claim 3 of the '254 Patent contains all the elements of claim 1 above and additionally claims the following:

MIDDLETON REUTLINGER

> Elliot A. Salter, Esq. February 22, 2005 Page 2

[5] a third light fixture within said body oriented to direct light downwardly under said body to a selected patient examination area.

As discussed below, the Multmed contains each of the elements of both claims 1 and 3.

As we observed, the Multmed contains three light fixtures housed within a single unit or body and is constructed so that the unit can be installed in a ceiling. In fact, ALS states in its product brochures that the Multmed is a single unit which contains "reading," "ambient," and "examination" fixtures. Moreover, as ALS's brochures illustrate and as we observed, the product is constructed so that it may be ceiling-mounted.

Element 3 of claims 1 and 3 recite that a light fixture is oriented to direct light downwardly to a selected reading area under the body of the unit. As you can see from the attached pictures, the Multmed product (where the light fixture labeled by your client as the "reading" fixture is illuminated) does in fact direct light downwardly to a reading area under the unit. This is confirmed by the attached photometric report. That report illustrates a candela distribution chart which reveals that the luminous intensity is directed downward so that light from the fixture is directed downwardly to a reading area under the ceiling mounted unit. In addition, this light fixture of the unit also directs light to a vertical wall where it is reflected back to and illuminates a broad area under the ceilingmounted unit. Thus it appears that ALS has oriented the "reading" fixture so that light is directed outwardly in addition to light being directed outwardly. However, light from both directions ends up at the reading area under the unit. As you know, the addition of structure to the claimed structure does not avoid infringement. Thus, it is clear to us that this element of claim 1 and/or 3 is met by the Multmed product.

In prior correspondence, you have argued that no light fixture of the ALS product is present to meet Element 4 of claims 1 and 3. That element recites that a light fixture is oriented to direct light downwardly and outwardly to a vertical wall surface outwardly adjacent from said body whereby light is reflected back to a broad area under said body. However, as can be seen from other attached pictures, the Multmed product (now illuminating the fixture labeled by your client as the "ambient" fixture) does direct light downwardly and outwardly so that light is reflected off of the vertical wall to illuminate a broad area under the unit. In fact a substantial portion of the light measured at the bed level comes from a source which has been directed downwardly and outwardly to a vertical wall where it is reflected back to a broad area under the unit, as recited in element 4 of claim 1 and/or 3. Again, the attached photometric report verifies that light is directed downward and outward at an angle so that light would strike a vertical wall adjacent to the fixture when the unit is ceiling-mounted. Thus, contrary to ALS's contention and your argument, the Multmed product meets this limitation and, consequently, all the limitations of claim 1 of the '254 Patent.

MIDDLETON REUTLINGER

Elliot A. Salter, Esq. February 22, 2005 Page 3

What is more, element 5 of claim 3 recites that a third light fixture is oriented to direct light downwardly under said body to a selected patient examination area. As you can see from other attached pictures, the Multmed (where the light fixture labeled by your client as the "examination" fixture is illuminated) does in fact direct light downwardly to a patient examination area. This is again confirmed by the attached photometric report. That report illustrates a candela distribution chart which reveals that the luminous intensity is directed downward so that light from the fixture is directed downwardly to a patient examination area under the ceiling mounted unit. Consequently, all the limitations of claim 3 are likewise met by the Multmed.

As illustrated above, the Multmed contains each and every element of at least claims 1 and 3 of the '254 Patent and, consequently, ALS is infringing upon our client's patent rights. Therefore, on behalf of our client, we demand that ALS cease and desist from further manufacturing, selling, offering to sell, or importing of all Multmed products covered by the claims of the '254 Patent. We further demand that ALS provide us with an accounting of all sales of the Multmed products covered by the '254 Patent and identify the number of Multmed products in inventory.

We must additionally request that ALS provide us with immediate written assurances that it will no longer manufacture, sell, offer to sell, or import lighting fixtures covered by the claims of the '254 Patent. If we do not receive written assurances by March 1, 2005, we will assume that ALS does not desire to resolve this matter amicably, and we will take appropriate action in order to protect our client's patent rights.

Thank you for your prompt attention to this matter. We look forward to resolving this matter without the need for litigation.

Very truly yours,

MIDDLETON REUTLINGER

Robert J. Theuerkauf

RJT

Enclosures

cc: Daniel R. Fuller, Esq.
James E. Milliman, Esq.
James R. Higgins, Jr., Esq.

GI 00476